Mechanisms underlying inflammation in neurodegeneration.

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Public Summary:

Scientific Abstract:
Inflammation is associated with many neurodegenerative diseases, including Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, and multiple sclerosis. In this Review, we discuss inducers, sensors, transducers, and effectors of neuroinflammation that contribute to neuronal dysfunction and death. Although inducers of inflammation may be generated in a disease-specific manner, there is evidence for a remarkable convergence in the mechanisms responsible for the sensing, transduction, and amplification of inflammatory processes that result in the production of neurotoxic mediators. A major unanswered question is whether pharmacological inhibition of inflammation pathways will be able to safely reverse or slow the course of disease.